Amendments to the Drawings:

The attached sheets of drawings include changes to FIGS. 2, 3, and 6. These sheets replace the original sheets including FIGS. 2, 3, and 6. In FIGS. 2 and 3, the missing reference numeral 122 has been added. In FIG. 6, the missing reference numeral 122x has been added.

Attachment: Replacement Sheets (2)
Annotated Sheets Showing Changes (2)

REMARKS/ARGUMENTS

Claims 1-16 remain in the application. Claims 14-16 were deemed allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 14 and 15 have been amended. Claim 16 has not been amended at this time. New drawings are being submitted. Reconsideration of this application in view of the attached remarks/arguments is respectfully requested.

The drawings were objected to for various informalities. New drawings are being submitted to address this objection.

Claims 1-13 were rejected under 35 U. S. C. §103(a) as being anticipated by US 5,628,890 (Carter et al.) This rejection is respectfully traversed for the following reasons.

Carter et al., U. S. Patent No. 5,628,890 (hereinafter "Carter et al."), discloses an electrode strip for use in an electrochemical sensor for measuring a compound in a sample. The strip includes an electrode support, a reference or counter electrode disposed on the support, a working electrode spaced from the reference or counter electrode on the support, a covering layer defining an enclosed space over the reference and working electrodes and having an aperture for receiving a sample into the enclosed space, and a plurality of mesh layers interposed in the enclosed space between the covering layer and the support, the covering layer having a sample application aperture spaced from the electrodes and the reference electrode spaced from the working electrode at a position remote from and on the opposite side of the working electrode from the aperture. The working electrode includes an enzyme capable of catalyzing a reaction involving a substrate for the enzyme or a substrate catalytically reactive with the enzyme and a mediator capable of transferring electrons transferred between the enzyme-catalyzed reaction and the working electrode to create a current representative of the activity of the enzyme and representative of the compound.

According to claim 1 of the present application, the sensor strip has "a flow channel having walls formed by said first major surface of said cover layer, said first major surface of said base layer, and said spacer layer, said

flow channel having a reaction site therein, the layer of mesh not contacting the reaction site." (emphasis added). As can be seen in FIG. 3 of the present application, the layer of mesh 118 does not contact the reaction site, which includes those portions of the sensor where electrochemical reactions occur and electrons flow, i.e., the surfaces of the electrodes. According to page 19, lines 13-21 of the specification of the present application:

> FIG. 12 shows a sensor 200 of the prior art having a base layer 202, a cover layer 204, and an insulating layer 206, in which fibers 208 of the mesh contact the electrodes 210 in the electrode arrangement, thereby preventing portions 212 of the electrodes 210 from contacting the sample. Only the fibers 208 running longitudinally are shown. Fibers running horizontally (not shown) would also contact the electrodes. Integration of the layer of mesh with the cover layer simplifies the process for manufacturing the sensor, thereby lowering the cost of the sensor.

In addition, according to column 6, lines 17-28 of Carter et al.:

> Finally, the upper part of the electrode is enclosed by a liquid/vapor impermeable membrane 13 (typically a flexible tape made of polyester or similar material) which includes a small aperture 14 to allow access of the applied sample to the underlying surfactant coated mesh layers. This impermeable membrane serves to enclose the exposed working and reference electrodes and thus maintain the available sample space over the electrodes at a fixed maximum height equivalent to the thickness of both mesh layers, ensuring that the solution resistance is kept at a high level. Any sample thickness up to the maximum depth of the two mesh layers has been found to be adequate in this respect.

Because the impermeable membrane 13 serves to enclose the exposed working and reference electrodes and thus maintain the available sample space over the electrodes at a fixed maximum height equivalent to the

thickness of both mesh layers, thereby ensuring that the solution resistance is kept at a high level, it is clear that one of the layers of mesh must contact the electrodes, in order to fulfill the available sample space maintenance requirement described in Carter et al. For this reason, it is submitted that Carter et al. does not anticipate claims 1-13 of the present application.

Furthermore, according to column 4, lines 56-64 of Carter et al.:

> The electrode area is then overlaid by a fine grade surfactant coated mesh 9 which serves to protect the printed components from physical damage and help the sample to wet the reference and working electrodes by reducing the surface tension of the sample and therefore allowing it to spread evenly over the electrodes. In a preferred embodiment this mesh layer extends over the whole length of the sample path, between and including the application point and the electrode area.

Because the electrodes are "printed components", which are described at column 3, lines 41-49 of Carter et al., it is clear that the coated mesh 9 of electrode sensor strip described in Carter et al. contacts the electrodes of the electrode sensor strip described in Carter et al. in order to protect the electrodes from physical damage. Again, because the coated mesh 9 described in Carter et al. contacts the electrodes in the electrode sensor strip, and the layer of mesh 118 of the sensor of the present invention does not contact the reaction site, which includes the electrodes, it is submitted that Carter et al. does not anticipate claims 1-13 of the present application.

In view of the foregoing, it is submitted that claims 1-16 are in condition for allowance, and official Notice of Allowance is respectfully requested.

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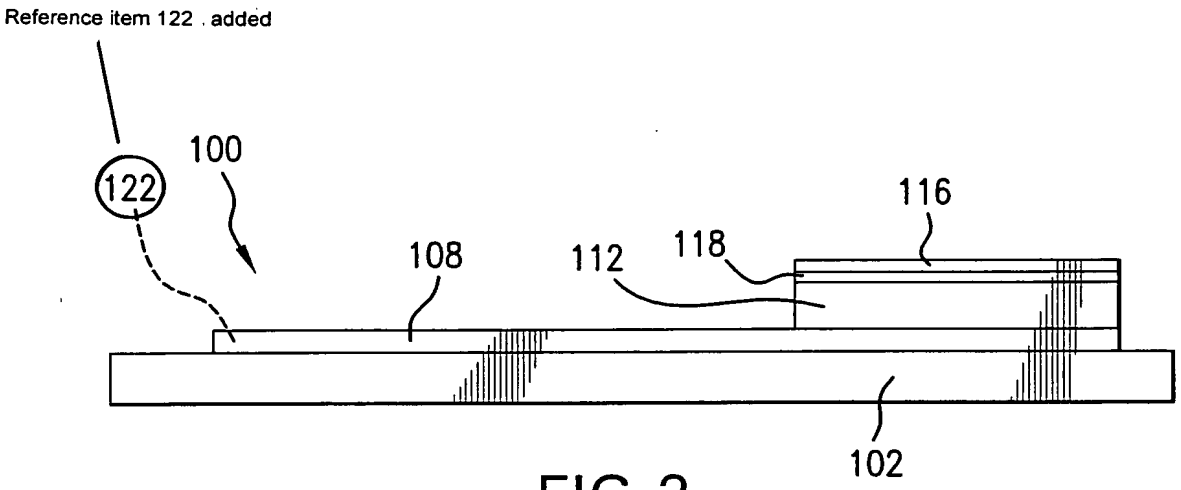
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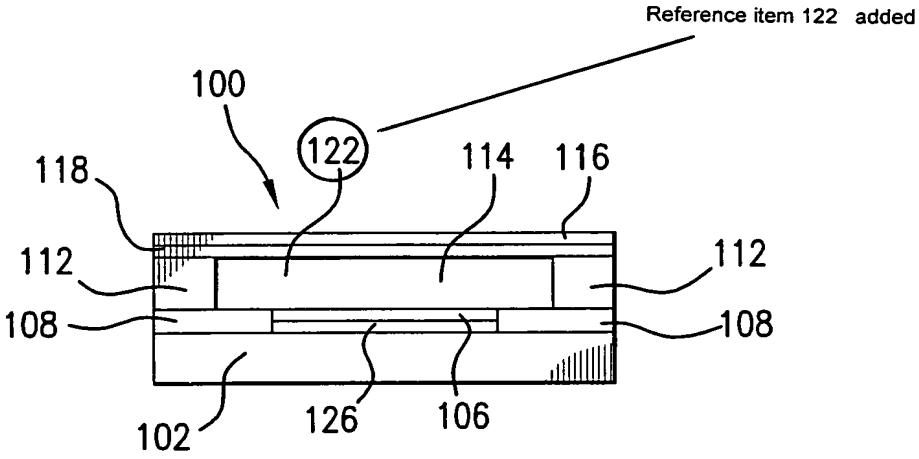
116
108
112
118
102

FIG.2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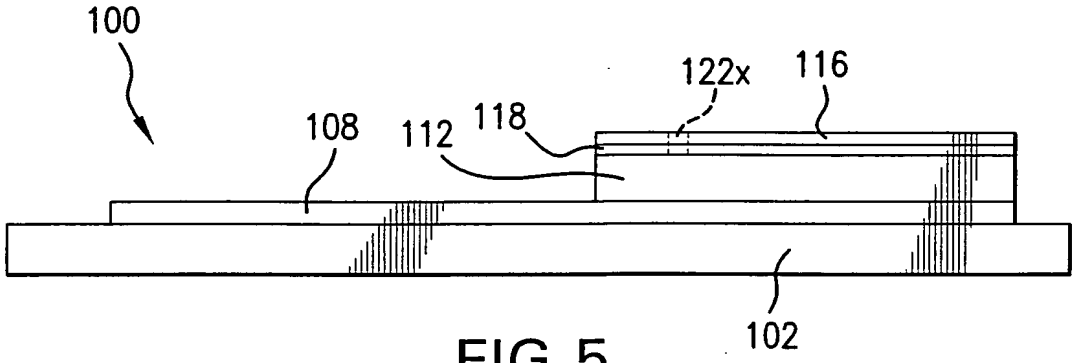
122
118
114
116
112
112
108
108
102
126
106

FIG.3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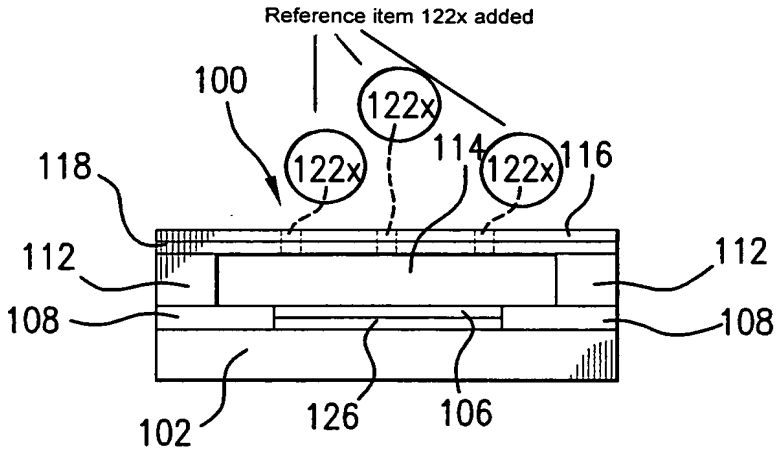
108
112
118
102

FIG.5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100
122x
122x
122x
114
116
118
112
112
108
108
102
126
106

FIG.6